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IMAGES IN CARDIOLOGY

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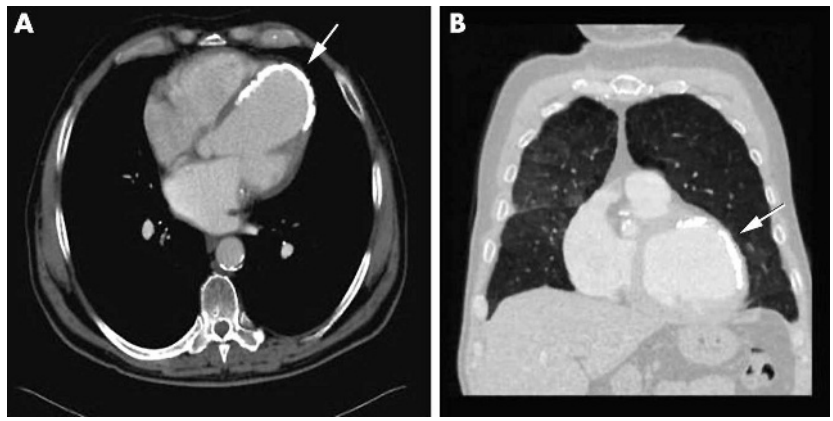
Myocardial calcification: a rare cause of diastolic dysfunction

A 65 year old man who suffered a large anteroapical myocardial infarction 12 years previously was admitted to the cardiology ward for investigation of heart failure. A roentgen chest *x* ray showed calcification projecting onto the apex of the heart which corresponded on computer chest *x* ray to an extensive circumferential area of transmyocardial calcification of the old infarcted area (panels A (transverse view) and B (sagittal view)). Serum calcium and parathyroid hormone concentrations were normal. To assess any functional cardiac changes due to these calcifications, a transthoracic echocardiogram was performed, which documented a left ventricular ejection fraction of 30% (Simpson method), an akinetic apical and mid part of the left ventricle, and a persisting restrictive inflow pattern even after high dose treatment with intravenous diuretic therapy. We postulate that part of the restrictive inflow pattern is secondary due to the stiff characteristic of the ventricle mainly caused by a large area of myocardial calcification. Cardiac calcifications have been reported resulting from secondary hyperparathyroidism, most frequently related to chronic renal failure and uraemia and to atherosclerosis mainly in the coronary arteries or cardiac valves. However, a detailed review of the literature revealed no reports of extensive circumferential myocardial calcification secondary to an old myocardial infarction.



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